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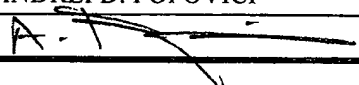
6,970,615 B1, 10/802,126 (OPT-115)

12/3/2005

**In the Certificate of Correction Branch**

**Request for Certificate of Correction Under 37 C.F.R. 1.322 and 35 U.S.C. 254**

Patent Number	6,970,615 B1
Issue Date	11/29/2005
Application Number	10/802,126
Filing Date	03/16/2004
First Named Inventor	Fang
Title	Compact High-Stability Optical Switches
Group Art Unit	2883
Examiner Name	Kianni, Kaveh C.
Docket Number	OPT-115

CERTIFICATE OF MAILING/TRANSMISSION	
I hereby certify that this correspondence is deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Attention Certificate of Correction Branch, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on this date: <b>December 5, 2005</b> .	
TYPED OR PRINTED NAME:	ANDREI D. POPOVICI
SIGNATURE:	
DATE:	12/5/2005

Attention Certificate of Correction Branch  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

**Certificate**  
**DEC 09 2005**  
**of Correction**

Sir/Madam:

Please correct the above-referenced patent as shown on the enclosed form PTO/SB/44.

Attached are copies of three pages showing that the errors occurred due to Office mistakes: page 3 of the Office Action mailed 04/11/2005, showing an Examiner's Amendment with correct placement of commas and the text of claim 5, lines 39-40; and the text of claim 5 as originally filed and as amended in the Amendment filed 02/01/2005, showing the correct typing of the word "first" (rather than "fist") in the submissions.

Applicants respectfully submit that the errors noted on the attached form PTO/SB/44 occurred through the fault of the Office, and are clearly disclosed in the records of the Office. Correction of the errors under 35 U.S.C. 254 and 37 C.F.R. 1.322 is requested.

DEC 12 2005

6,970,615 B1, 10/802,126 (OPT-115)

12/3/2005

Respectfully submitted,

Date: 12/5/2005



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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 1

PATENT NO. : 6,970,615 B1

APPLICATION NO.: 10/802,126

ISSUE DATE : November 29, 2005

INVENTOR(S) : Fang et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Claim 1, line 54: insert a comma (---) after "facing the first collimator";

Claim 1, line 59: insert a comma (---) after "facing the second collimator".

Claim 5, line 27: replace "fist" with --first--;

Claim 5, lines 39-40: replace "mirror to reflect separated from the switching prism light" with --mirror separated from the switching prism to reflect light--

Claim 9, line 14: insert a comma (---) after "facing the first collimator".

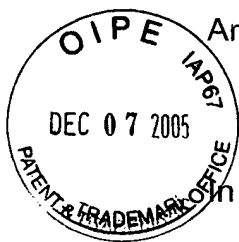
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This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

**DEC 12 2005**



In page 2, line 16, immediately after 'the first collimator,' insert separated from the switching prism,

In page 2, line 19, immediately after 'the second collimator,' insert separated from the switching prism,

In page 3, line 28, immediately after 'a fixed mirror' insert separated from the switching prism

In page 5, line 3, immediately after 'the first collimator,' insert separated from the switching prism,

In page 6, line 16, immediately after 'a fixed mirror' insert separated from the switching prism

#### ***Reason for Allowance***

Claims 1-20 are allowed for the following reasons:

The instant application is deemed to be directed to a nonobvious improvement over the invention patented in Pat. No. Chen et al. (US 6647173).

Claim 1 is allowed because the prior art of record, taken alone or in combination, fails to disclose or render obvious a first/second fixed planar mirror facing the first/second collimator, separated from the switching prism, and aligned to reflect light from the first/second input fiber into the first /second output fiber when the switching prism is in the second position in combination with the rest of the limitations of the base claim. Claims 2-4 depend on claim 1 and therefore they are also allowed.

the switching prism is a dovetail prism.

4. (original) The switch of claim 1, wherein:

the first mirror is positioned substantially a distance  $D_c$  away from an endface of the first collimator; and

the switching prism is sized and positioned according to a relation

$$S + (L/2 + W/2)/n = D_c,$$

wherein  $S$  is a distance between the endface of the first collimator and a transmissive face of the switching prism,  $W$  is a width of the switching prism along a direction parallel to a longitudinal central axis of the first collimator,  $L$  is a length of the switching prism along a direction perpendicular to the longitudinal central axis of the first collimator, and  $n$  is an index of refraction of the switching prism.

5. (currently amended) An optical switching method comprising:

positioning a switching prism in a first position in an optical path between a first dual-fiber collimator comprising a first pair of optical fibers, and a second dual-fiber collimator comprising a second pair of optical fibers,

employing the switching prism in the first position to direct light from an input fiber of the first collimator into an output fiber of the second collimator, and to direct light from an input fiber of the second collimator into an output fiber of the first collimator;

positioning the switching prism in a second position out of an optical path of light emitted from the input fiber of the first collimator and the input fiber of the second collimator;

reflecting light emitted from the input fiber of the first collimator into the output fiber of the first collimator when the switching prism is in the second position; and

using a fixed mirror to reflect ~~reflecting~~ light emitted from the input optical fiber of the second collimator into the output fiber of the second collimator when the switching prism is in the second position.

the switching prism is a dovetail prism.

4. The switch of claim 1, wherein:

the first mirror is positioned substantially a distance  $D_c$  away from an endface of the first collimator; and

the switching prism is sized and positioned according to a relation

$$S + (L/2 + W/2)/n = D_c,$$

wherein  $S$  is a distance between the endface of the first collimator and a transmissive face of the switching prism,  $W$  is a width of the switching prism along a direction parallel to a longitudinal central axis of the first collimator,  $L$  is a length of the switching prism along a direction perpendicular to the longitudinal central axis of the first collimator, and  $n$  is an index of refraction of the switching prism.

5. An optical switching method comprising:

positioning a switching prism in a first position in an optical path between a first dual-fiber collimator comprising a first pair of optical fibers, and a second dual-fiber collimator comprising a second pair of optical fibers,

employing the switching prism in the first position to direct light from an input fiber of the first collimator into an output fiber of the second collimator, and to direct light from an input fiber of the second collimator into an output fiber of the first collimator;

positioning the switching prism in a second position out of an optical path of light emitted from the input fiber of the first collimator and the input fiber of the second collimator;

reflecting light emitted from the input fiber of the first collimator into the output fiber of the first collimator when the switching prism is in the second position; and

reflecting light emitted from the input optical fiber of the second collimator into the output fiber of the second collimator when the switching prism is in the second position.